

UNIVERSITY OF MANITOBA PROCEDURE

Procedure:	Radiation Safety
Parent Policy:	Radiation Safety Policy
Effective Date:	August 26, 2011
Revised Date:	September 14, 2016
Review Date:	September 14, 2026
Approving Body:	President, Vice-President (Administration) or Vice-President (Research and International)
Authority:	<i>Nuclear Safety Control Act, Manitoba Workplace Safety and Health Act</i>
Responsible Executive Officer:	Vice-President (Administration) and Vice-President (Research and International)
Delegate:	Chief Risk Officer and Associate Vice-President (Research)
Contact:	Environmental Health and Safety Coordinator
Application:	All employees, students, external parties (individuals with adjunct appointments and nil-salaried appointments)

Part I Reason for Procedure

- 1.1 To set procedures and responsibilities in connection with the Radiation Safety Policy for all radioactive material, radiation devices and X- ray equipment in all areas under the control of the University.

Part II Procedural Content

Radiation Protection Committee

- 2.1 The Radiation Protection Committee is authorized to:
- (a) advise on the safe use of radioactive materials, radiation devices and X-ray equipment in all areas under the control of the University;

- (b) make recommendations to University Governing Documents relating to radiation protection;
- (c) approve standard procedures and guidelines relating to radiation safety;
- (d) issue (or deny) Permits to control the use of all licensed activities involving radioactive material, X-Ray equipment and other sources of ionizing radiation; enforce the Radiation Safety Program and supervise the external and internal dose monitoring and verification of compliance;
- (e) revoke Permits from individuals who contravene these Procedures or the Policy;
- (f) review reports of all inspections, incidents, unusual occurrences, and other relevant materials from the Radiation Safety Officer and make recommendations as appropriate.

2.2 Committee Membership

- (a) The number of appointed members of the Committee shall not be more than ten (10);
- (b) Each member shall serve a terms of five (5) years, with the option to serve one (1) additional term for up to five (5) years;
- (c) At least one (1) member of the Committee shall be a nuclear medicine physician to fulfill the role of medical advisor;
- (d) At least one (1) member of the Committee shall be a supervising dentist with the College of Dentistry;
- (e) One (1) member of the Committee shall be nominated by the Director of the Research Institute of Oncology and Hematology;
- (f) One (1) member of the Committee shall be from the bargaining unit representing technical support staff;
- (g) One (1) member of the Committee shall be from the bargaining unit representing faculty members;
- (h) The members shall be appointed by the Associate Vice-President (Research);
- (i) Alternates shall be appointed during an extended leave of a Committee member;
- (j) The Associate Vice-President (Research) may appoint an ex-officio, non-voting member to the Committee; and

- (k) The Radiation Safety Officer and other designated Environmental Health and Safety staff shall be non-voting members and shall act as resources to the Committee.

2.3 Officers of the Committee

(a) Chair

- (i) The Chair shall be appointed by and report to the Associate Vice-President (Research);
- (ii) The Chair may participate to an equal extent as any other member of the Committee in the discussions and decisions; and
- (iii) The Chair shall select one (1) member of the Committee to act on behalf of the Chair in the event of his/her absence.

(b) Secretariat

Environmental Health and Safety shall provide secretarial support to the Committee, maintain a file of all correspondence to and from the Committee, record minutes of meetings and shall issue notices of meetings after consultation with the Chair.

2.4 The Committee issues Permits to control all procurement, use, storage, transfer and disposal of all radioactive materials, radiation devices and X-ray equipment in all areas under the control of the University. The Permit will specify:

- (a) The Permit Holder;
- (b) Designated Workers;
- (c) Laboratory Radiation Supervisor (if one has been identified);
- (d) Permitted radioactive material and possession limits; radiation devices or X-ray equipment;
- (e) Approved locations;
- (f) Approved usage;
- (g) An approved disposal procedure; and
- (h) Other conditions of use as appropriate.

2.5 The Permit is conditional on the strict adherence to all terms and conditions and parameters listed on the Permit.

- 2.6 All applications for Permits must be completed by the Permit Holder/ Responsible User and submitted to Environmental Health and Safety. The Radiation Safety Officer shall assess the application, and forward it to the Chair of the Committee for approval.

Eligibility

- 2.7 Permit Holder/ Responsible User must hold an academic appointment at the level of lecturer or higher, or be support staff and are accountable to a Dean, Director or Department Head.
- 2.8 In order to use radioactive materials, radiation devices, X-ray equipment or other sources of ionizing radiation one must be:
- (a) A Designated Worker; or
 - (b) In the case of X-ray equipment that is enclosed and interlocked by the manufacturer and has passed an X-ray leakage test, a person acting under the supervision of a Designated Worker, listed on the related Permit.

Responsibilities of Permit Holders

- 2.9 The Permit Holder is responsible to:
- (a) ensure that all Designated Workers as listed on the Permit are aware of the Radiation Safety Policy and Procedures;
 - (b) ensure that all Designated Workers are trained to work safely with radiation and to provide site-specific training in the safe use of radioactive materials, radiation devices and X-ray equipment listed on the Permit;
 - (c) regularly assess and inspect their areas for compliance with the Policy and Radiation Safety Procedures;
 - (d) ensure that any incidents that occur in their area are promptly reported to Environmental Health and Safety;
 - (e) adhere to all responsibilities as listed on the Permit; and
 - (f) keep records of all site specific training pertaining to the Permit.

Responsibilities of Designated Workers

- 2.10 Designated Workers shall adhere to all responsibilities as listed in the Radiation Safety Manual and comply with the Radiation Safety Policy and Procedures.

Radiation Safety Manual

- 2.11 Environmental Health and Safety shall develop and maintain the Radiation Safety Manual containing the standard procedures relating to the Radiation Safety Policy and Procedures. The Committee shall approve and enforce the standard procedures as contained in the Radiation Safety Manual.

Training

- 2.12 All Permit Holders and Designated Workers shall be trained in accordance with the standard procedures as outlined in the Radiation Safety Manual. Environmental Health and Safety shall keep copies of EHS supplied training.

Reports and Assessments

- 2.13 Environmental Health and Safety shall make periodic assessments of all permitted activities. Inspections may be announced or unannounced. All users are required to cooperate with the inspection.
- 2.14 Environmental Health and Safety may require periodic written reports from the Permit Holder.

Enforcement

- 2.15 On the first occurrence of an offence, the Permit Holder will be notified verbally and in writing by the Radiation Safety Officer of the offence with reference to the Radiation Safety Procedure.
- 2.16 On the second occurrence within a year of an offence, the Radiation Safety Officer will send a letter to the Permit Holder, as a "Notice of Non-Compliance" to the Permit Holder that:
- (i) is copied to the Permit Holder's supervisor;
 - (ii) has reference to the Radiation Safety Procedures, the duties of the Permit Holder in that respect, and the consequences of further infractions; and
 - (iii) will be communicated to all members of the Committee.
- 2.17 On the third occurrence within a year of an offence, the Radiation Safety Officer shall inform the Chair of the Committee and the following process will be followed:
- (a) The Chair will call an emergency ad hoc meeting of the Committee to be held within seven (7) days. The Chair will invite the Permit Holder and his/her supervisor. At this meeting, the Permit Holder will be required to show cause as to why the Permit should not be revoked if a majority of the membership of the Committee members in attendance is not satisfied

that the Permit Holder has provided justification for retaining the Permit, the Permit will be revoked and Environmental Health and Safety will dispose of all radioactive materials and lock-out any research X-ray equipment.

- (b) The Chair of the Committee will notify the Dean of the appropriate Faculty and the Associate Vice-President (Research) of the decision of the Committee.
- 2.18 The Committee may decide to bypass one or more of the above noted steps if a serious violation occurs.
- 2.19 Notwithstanding any of the above actions, if it is the opinion of the Radiation Safety Officer that a serious, immediate risk to health, safety, environment or security exists, the Radiation Safety Officer shall have the authority to suspend operations or temporarily suspend a Permit. The Radiation Safety Officer will make a report on the situation, and the steps taken, to the Chair of the Committee. The Chair of the Committee will proceed as though this incident was a third occurrence within a year as outlined in 2.17.

Part III Accountability

- 3.1 The Office of Legal Counsel is responsible for advising the Vice-President (Administration) and the Vice-President (Research and International) that a formal review of this Procedure is required.
- 3.2 The Chief Risk Officer and Associate Vice-President (Research) are responsible for the implementation, administration and review of this Procedure.

Part IV Review

- 4.1 Governing Document reviews shall be conducted every ten (10) years. The next scheduled review date for this Procedure is September 14, 2026.
- 4.2 In the interim, this Procedure may be revised or repealed if:
- (a) the President, Vice-President (Administration) or Vice-President (Research and International) or the Approving Body deems it necessary or desirable to do so;
 - (b) the Procedure is no longer legislatively or statutorily compliant;
 - (c) the Procedure is now in conflict with another Governing Document; and/or

- (d) the Parent Policy is revised or repealed.

Part V Effect on Previous Statements

- 5.1 This Procedure supersedes all of the following:
 - (a) Procedure: Radiation Safety (August 26, 2011);
 - (b) all previous Board of Governors/Senate Governing Documents on the subject matter contained herein; and
 - (c) all previous Administration Governing Documents on the subject matter contained herein.

Part VI Cross References

- 6.1 This Procedure should be cross referenced to the following relevant Governing Documents, legislation and/or forms:
 - (a) [Health and Safety Policy](#)
 - (b) [Radiation Safety Policy](#)
 - (c) [Nuclear Safety and Control Act](#)
 - (d) [The Workplace Safety and Health Act \(Manitoba\)](#)